REMARKS

Claim amendments

Applicants have cancelled the claims that were not elected in response to the restriction requirement. The claims are cancelled without prejudice to filing one or more divisional applications.

Drawing objection

The Examiner has objected to the drawings and requests new drawings showing the first and second positions of the shield and the home and deployment positions of the cutting element.

The first (closed) position of the shield is indicated in Figures 17, 18, 19 and 20, with the shield (416 in Figure 22) shown in the lower position covering the aperture 404 (Figure 22). The home position of the cutting element is also indicated in these figures, since it is located behind the shield.

The second position of the shield and the deployed position of the cutting element are shown in new Figure 35 submitted herewith.

All the important structural and cooperative relationships between the elements of the sealer as claimed are indicated in the figures and described at length in the specification at pages 26-29. Accordingly, the drawing objection should be removed.

Specification amendment and objection

The specification at page 26 as been amended to correct the typographical error in the number of the aperture. The aperture is described and shown in the drawings as item 404, not 406.

The specification at page 28 as been amended to correct the typographical error in the number of the shield 416. The shield is described and shown in the drawings as item 416, not 406.

The specification at page 39 has been amended to correct the typographical error in the number of the transport system. The transport system is described and shown in the drawings as item 1000, not item 100.

§ 112 rejections

Claims 1-4 and 10 were rejected as being indefinite due to the recitation of the enclosure having an aperture with a shield "moveable between a first position covering the aperture and a second position not covering said aperture." The Examiner states that it is "unclear whether or not the shield is intended to top the aperture in a horizontal plane."

The applicants respectfully submit that the Examiner is creating the ambiguity where none exists in the claim. The term "covering" is used in the sense of "something that is placed over ***or about*** another thing." Webster's 9th new collegiate dictionary, page 300 (1991)(emphasis added). Something can cover another thing without it (the cover) being in horizontal plane. For example, one might instruct a child to "cover your mouth when you sneeze" and that instruction means place your hand (or a Kleenex) over your mouth. The word "cover" does not mean that the child is lying down and their mouth is pointing towards the ceiling. As another example, the expression "cover your eyes" does not mean that the cover (your hand) is in a horizontal plane and your head is tilted back and pointed towards the ceiling. Thus, in plain English, and as stated in the dictionary, the word "cover" does not necessarily mean "over" in the sense that it (the cover) has to be above (in a horizontal plane). As shown in

the applicant's drawings, the shield does not lie in a horizontal plane but it still covers (i.e., is placed about another thing). Applicants need not and do not wish to be limited to a particular orientation of the cover (shield) as the orientation could change but the recited functionality would remain the same.

Accordingly, the rejection of the claims on this basis is unwarranted and should be removed.

The claims were further rejected for alleged lack of clarity in the recitation of the movement of the cutting assembly through the aperture from the home to deployed position causes the shield to move to the second position, and moving from the deployed position to the home position causes the shield to move to the first position covering the aperture. Applicants respectfully submit that no further recitation of structure is needed for the claim to be sufficiently clear and definite, and that the Examiner is seeking to impose undue narrowing to the claim. The applicants recite the functional relationship between the cutting assembly and the shield and how they interact – movement of the cutting assembly causes the shield to move between the first and second positions, as claimed. The particular manner in which this occurs need not be recited in the claim because applicants are not limited to the specifics of the illustrated embodiment and persons skilled in the art would understand that other arrangements could be provided for, such as controlling or coordinating structure.

If the Examiner's logic was applied across the board, no broadly drafted claim would ever be allowable, nor would a claim which uses functional language ever be allowed. Functional language, as used in this claim, does not necessarily render a claim improper or

not a sample testing instrument or such an instrument having a vacuum loading station. Accordingly, claim 1 and dependent claims 3 and 10 are not anticipated by Krainer.

Obviousness Rejection

Claims 1-4 and 10 were rejected as obvious under 35 U.S.C § 103 over Karl et al. (U.S. 5,891,396) in view of Wirtz-Odenthal, U.S. 5,161,723.

The Examiner cites to a passage in Wirtz-Odenthal at col. 1 lines 21-27. The reference is there discussing the teachings of DE 3049840 C2. The DE '840 reference cited in Wirtz-Odenthal has a US counterpart, namely Macgrory et al., U.S. patent 4,427,144. The '144 patent is cited in the Information Disclosure Statement filed herewith and consideration of the full reference is requested.

The sealer of the present invention differs substantially from the sealer of the Karl reference, in that the Karl reference does not disclose a sealer having the enclosure and shield features recited in claim 1:

an enclosure having an aperture and shield moveable between a first position covering said aperture and a second position not covering said aperture;
a moveable cutting element assembly having a home position located within said enclosure;
a motor for moving said cutting element assembly through said aperture to a deployed position wherein said cutting element assembly is positioned external to said enclosure at a position for cutting said conduit, wherein movement of said cutting element assembly through said aperture causes said shield to move to said second position, and wherein movement of said cutting assembly from said deployed position to said home position causes said shield to move from said second position to said first position covering said aperture, whereby when said cutting element is in said home position, said shield and said enclosure prevent inadvertent contact with said cutting assembly.

The Wirtz-Odenthal reference (and the Macgrory reference cited therein) also do not teach or suggest the invention of claim 1. While Macgrory shows an aperture and a shield (the

indefinite. See MPEP 2173.05(g). Furthermore, merely because a claim is broadly drafted also does not render the claim indefinite. See MPEP 2173.04.

The rejection of claim 1 and claims 3-4 on this basis should be removed.

Claim 3 was rejected due the recitation "adjustment of the operation of said motor", the Examiner stating that it "appears to require a controlling device." The Examiner has also objected to the expression "relative to said instrument." The claim has been amended to delete the whereby clause reciting the adjustment aspect and do delete "relative to said instrument." The rejection is moot.

Claim 4 has been amended to positively recite that the spring loaded member engages with the test sample card, thereby eliminating the Examiner's concern that it contains a "conditional limitation."

All of the § 112 rejections should be withdrawn.

Anticipation Rejection

Claims 1, 3 and 10 were rejected as anticipated by Krainer et al. US 5,471,016.

Krainer is directed to a shaving apparatus. Claim 1 has been amended to recite the applicants' environment for the sealer, and in particular recite a sample testing instrument for processing a test sample device and a fluid receptacle containing a fluid sample. Claim 1 further recites a vacuum station for loading the fluid sample into the test sample device. The Krainer reference does not disclose these elements at it discloses features relating to shaving apparatus,

drop plate 34), the Wirtz-Odenthal and Macgrory references do not suggest a cutting element which includes a motor that moves the cutting element through the opening and moves the shield to the second (retracted position). In the DE (Macgrory) reference cited in Wirtz-Odenthal, the cutting wire remains in place and is not actuated by a motor. The plastic film comes into contact with the wire due to the action of the user raising up the film with their hands, not through any action of a motor. (See Macgrory, col. 3 lines 1-9).

Claim 1 further recites that "wherein movement of said cutting element assembly through said aperture causes said shield to move to said second position, and wherein movement of said cutting assembly from said deployed position to said home position causes said shield to move from said second position to said first position covering said aperture . . . ". This is not the case in Macgrory. The action which moves the shield ("drop plate" 34) in Macgrory is the action of pulling and lifting up of the sheet of film, not movement of the hot cutting wire. The hot cutting wire in Macgrory does not move or cause the drop plate to open.

Additionally, there is nothing in Karl that would suggest that the sealer in Karl should be modified to have the enclosure and shield features as set forth in Wirtz-Odenthal or Macgrory. The Karl et al. instrument is a completely automated instrument, and once a tray loaded with test devices is placed in the Karl instrument, the processing operations (including sealing operation) occur without any human involvement. The sealing operation is performed deep within the instrument and behind protective covering panels. Thus, one skilled in the art would find no ready way to combine the sealing features of Karl with Wirtz-Odenthal/Macgrory because Macgrory relies on manual movement of the object to be sealed - - the film - - in order to cut the film and no manual movement occurs in Karl.

For all the above reasons, the rejection of claim 1 and claims dependent therefrom based on Karl and Wirtz-Odenthal should be removed.

As to claim 4, the Examiner errs in the analysis of the sealer module of Karl. Nothing in Karl suggests incorporating the claimed spring-loaded member into the sealing station of Karl. The spring loaded drive assembly shown in Figure 17 is provided to transport the test sample cards back and forth from the incubation station past optical reading stations. The springs (714 in Figure 17) insure contact between the bottom surface of the test sample cards and the drive belt 710 of the transport system and the upper surface of the test sample cards and the groove or channel 720. This function has nothing to do with sealing of the test sample cards. The Karl reference does not disclose any spring-loaded functionality with regards to the plate 504 to which the hot cutting wire 506 is mounted (see Figures 4 and 5). Nor would such spring loading be required. In particular, since the test cards are resting in the cassette (see Figure 5), all that is required is to lower the hot cutting wire 506 to the proper elevation and then as the cassette is advanced past the hot cutting wire the cutting occurs. See col. 16 lines 6-19. Any fore and aft movement of the cards is constrained by the structures in the cassette which hold the cards. No biasing of the cards, or the hot cutting wire, by means of a spring is required or disclosed in Karl.

Therefore, there is absolutely nothing in Karl which would suggest in the slightest that the spring loading features of the test card transport system of Figure 17 should be incorporated into the sealing station of Figures 4 and 5 of Karl.

Conclusion

Applicant submits that the rejections should all be withdrawn and the case passed to issuance. Prompt and favorable action to that end is requested.

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Certificate of mailing

The undersigned hereby certifies that the foregoing Amendment is being deposited as first class mail, postage prepaid, in an envelope addressed to Mail Stop Amendment Commissioner for Patents, PO Box 1450 Alexandria VA 22313-1450 on this 8th day of January, 2008.

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